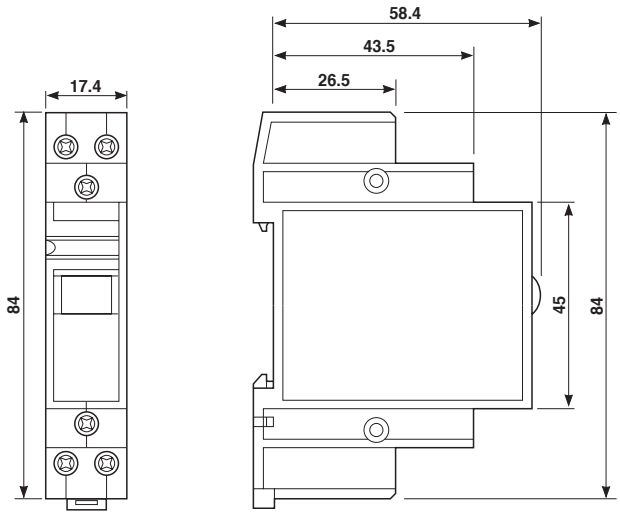
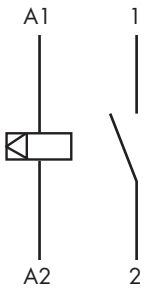
20 SERIES MODULAR STEP RELAYS

- A range of one module (17.5mm) wide modular step relays with 1 or 2 NO 16A 250V AC contacts
- Test button with mechanical indicators
- 6 functions available
- AC/DC coils
- Identification label
- Clamps suitable for two 4 mm^2 wires each
- Clamps not lined up to make wiring easier
- DIN rail 46277 mount
- Possible to connect illuminated push buttons (by means of capacitor)
- In conformity with IEC 669 - 1 and IEC 669 - 2 - 2
- Approvals (according to type): IMQ, RINA, SEV, UTE

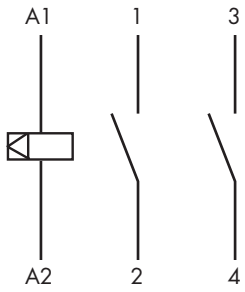
MODULAR STEP RELAY

TYPE 20.21 single phase switch 1 NO
TYPE 20.22 double phase switch 2 NO
TYPE 20.23 double phase switch 1 NO + 1 NC
TYPE 20.24 4 sequence double phase switch
TYPE 20.26 3 sequence double phase switch
TYPE 20.28 4 sequence double phase switch
- 20.28 type suggested for rolling shutter automation
- ordering information: see page 24





20.21



20.22
20.23
20.24
20.26
20.28

TYPE	number of steps	SEQUENCES			
		1°	2°	3°	4°
20.21	2				
20.22	2				
20.23	2				
20.24	4				
20.26	3				
20.28	4				

TECHNICAL DATA

DIELECTRIC STRENGTH tested at: leakage current ≤ 30 mA for 1 min at 50 Hz		
	between coil and contacts	3500 V
	between open contacts	2000 V
	between adjacent contacts	2000 V
INSULATION RESISTANCE	≥ 10 · 10^3 MΩ	
MAXIMUM SWITCHING FREQUENCY	- without load: 3600 operations/h - at rated load: 900 operations/h	
AMBIENT TEMPERATURE	– 40 to 40°C	
MECHANICAL LIFE	300 · 10^3 operations	
PROTECTION CATEGORY	IP 20	

CONTACT SPECIFICATION

RATED CURRENT	16 A	
MAXIMUM PEAK CURRENT	30 A	
RATED VOLTAGE	250 V AC	
MAXIMUM SWITCHING VOLTAGE	400V AC	
NOMINAL RATE AC1: compensated fluorescent lamps: uncompensated fluorescent lamps: incandescence lamps:: halogen lamps:	 4000 VA 750 W 1000 W 2000 W 2000 W	 230 V AC 230 V AC 230 V AC 230 V AC
ELECTRICAL LIFE	≥ 100 · 10^3 operations	
STANDARD CONTACT MATERIAL	Ag Ni	

COIL SPECIFICATION

VERSIONS:
AC - alternating current 50 ÷ 60 Hz
DC - direct current

NOMINAL VOLTAGE U_N	AC: 8 - 12 - 24 - 48 - 110 - 125 - 230 - 240 V DC: 12 - 24 - 48 - 60 - 110 V
RATED POWER CONSUMPTION	AC: 5.5 VA DC: 5 W
OPERATING RANGE	AC (50 Hz): (0.85 ÷ 1.1) U_N AC (60 Hz): (0.9 ÷ 1.1) U_N DC: (0.9 ÷ 1.1) U_N
MAXIMUM IMPULSE DURATION	ACCORDING TO IEC 669

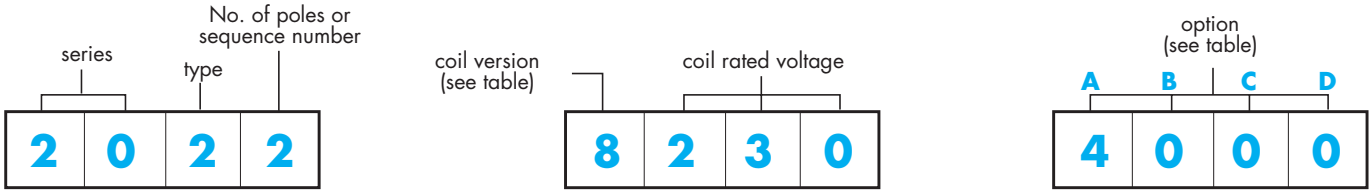
If the coil works for a prolonged period of time, adaquate ventilation of the relays must be provided, for example leaving a gap of abent 9mm between them.

AC - DC VERSION DATA (R values relate to +20°C. Tolerance of R and I values: ±10%.)

	AC		DC	
Nominal voltage U_N (V)	Resistance R (Ω)	Current consumption I at U_N (50 Hz) (mA)	Resistance R (Ω)	Current consumption I at U_N (mA)
8	3.5	700	—	—
12	7	450	27	440
24	27	210	105	230
48	105	110	440	110
110	600	45	2330	47
125	700	42	—	—
230	2500	23.5	—	—
240	2700	22	—	—

ORDERING INFORMATION

Example: A 20 series double phase switch relay with 2 NO contacts, coil rated at 230V AC with Ag Sn O_2 contact material.



COIL VERSION

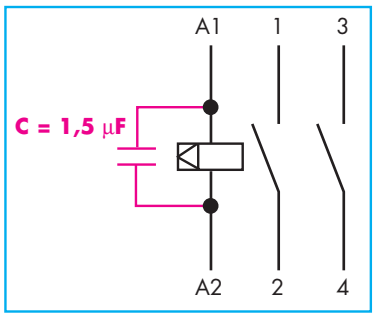
CODE		Coil types
9	DC	Direct current
8	AC	Alternating current (50/60 Hz)

OPTION

A	Contact material	B	Contact circuit	C	Light and mechanical indicators	D	Special application
0	standard	0	standard	0	standard	0	standard
4	Ag SnO_2						

CHARACTERISTIC OF THE CAPACITOR

A capacitor C = 1.5 µF (ordering code 02600) is available if using a maximum of 10 illuminated push-buttons (1.5 mA max, 230 V AC) in the switching input circuit. This capacitor has to be connected in parallel to the coil of the relay (see diagram).



CODE 02600

MATERIAL	metallised polypropylene
TOLERANCE CAPACITY	± 10%
RATED VOLTAGE	250 V AC
MAX TEMPERATURE	+ 85 °C
DIELECTRIC STRENGTH	1.6 kV, 50 Hz, 60s, (25 ± 5)°C
APPROVALS	VDE

Sealed version, 7.5 cm insulated and flexible terminals.